

# Boxelder Bugs



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**B**oxelder bugs, *Boisea trivittatus*, and other closely related insects are found throughout most of Texas and feed on several kinds of trees. In the fall when the temperatures drop, these bugs move to protected areas such as under shingles or siding, around doors and windows or in cracks and crevices in foundations.

Boxelder bugs may become a nuisance when they enter homes or other structures seeking shelter. If many of them move into a home, they can stain the walls, curtains, furniture and other surfaces with their excrement.

## Description

Adult boxelder bugs are about ½ inch long and ⅓ inch wide. They are dark brownish gray to black with distinctive red or orange markings consisting of three red lines running lengthwise on the pronotum (the area behind the head). The wings are folded over the back of the body, overlapping each other. Red lines mark the lateral margins of the wings (Fig. 1).

Immature stages, or nymphs, of boxelder bugs are shaped like the adults but are smaller and their wings are not fully developed. The nymphs are bright red and develop black markings and wings as they mature (Fig. 2).

Several related species that look much like boxelder bugs may occur in large populations. Bugs often confused with boxelder bugs include largus bugs and redshouldered bugs.



**Figure 1.** Adult boxelder bug



**Figure 2.** Nymph boxelder bug



**Figure 3.** Largus bug.



**Figure 4.** Redshouldered bug. Photo by Bart Drees.

The largus bug (Fig. 3) is oval, bluish gray and about ½ inch long. It has reddish orange markings around the edges of the pronotum and abdomen.

The redshouldered bug (Fig. 4) is oval and about ½ inch long. It is brownish gray with red eyes and red markings on the outside edges of the pronotum. Redshouldered bugs, like boxelder bugs, feed on the seeds of boxelder

trees as well as the fruits of other trees. Redshouldered bugs also can sometimes pose problems when they move indoors in the fall.

## Biology

In the spring when the weather begins to warm, boxelder bugs emerge and begin mating a few weeks later. The females deposit eggs in the cracks and crevices of tree bark. After about 2 weeks, the eggs hatch, and the nymphs develop into adults during the summer. There may be two or more generations per year in Texas; often, several stages of nymphs and adults can be seen at the same time.

In the fall, the adults and nymphs leave the trees they feed on and look for sheltered areas in which to spend the winter (overwinter). Although the nymphs are often present in the fall, usually only the adults survive the winter.

Large numbers of boxelder bugs are often seen congregating on houses or buildings. They prefer buildings with southern or western exposures.

As the temperatures drop, the boxelder bugs move into tree holes, cracks and crevices around foundations, and walls, door and window casings. Sometimes the bugs move indoors. Once inside, they move to the warm areas of the building and eventually move toward the windows or other sunny areas. Occasionally on warm winter days, boxelder bugs move from their protected areas to sun themselves.

## Host plants

Boxelder bugs feed primarily on the seeds of female boxelder trees. Minor host plants (plants from which they obtain food) include apple, ash, cherry, chinaberry, grape, peach, plum, maple and western soapberry trees. These bugs do not damage the host plants: Although they suck the plant juices while feeding, they are seldom abundant enough to harm the trees.

## Control

Prevention is a good way to keep boxelder bugs from moving into a house. Check the outside of the

structure for any areas that boxelder bugs may find to be a suitable overwintering location. It is preferable to inspect and take any necessary exclusionary steps before August. Preventive actions include:

- Seal cracks and crevices with caulk or expanding foam.
- Using caulk or expanding foam, seal the areas where pipes or wires enter the structure.
- Stuff weep holes with steel wool\*, copper mesh or plastic screening made specifically for weep holes (kits are available).
- Replace or repair any damaged window screens.
- Replace any damaged weather stripping around the doors. If you can see daylight around the doors when closed, replace the weather strip-ping.
- Install a door sweep on exterior doors and a rubber seal along the bottom of garage doors.
- Repair or replace damaged screens or soffit vents in the roof and eaves area of the structure.

Because the boxelder tree is the chief source of food for boxelder bugs, it might be beneficial to remove female, or seed-bearing, boxelder trees. If the trees are important in the landscape, plant only male boxelder trees. Eliminate hiding places such as piles of rocks, boards, leaves and general debris near the house.

If you do not wish to remove the host trees, and exclusion techniques are unsuccessful, you may need to apply an insecticide. To prevent indoor migration in the fall, treat the young, exposed bugs on the host trees in the spring and early summer. Applications should thoroughly cover the tree trunk, limbs and foliage.

Sprays can also be applied to hibernation areas such as the foliage and trunks of trees, building foundations, fences, sides of houses and other outside areas where the bugs congregate. Look for active ingredients such as neem, pyrethrin, rotenone, cyfluthrin, deltamethrin, esfenvalerate and malathion. Indoors, try vacuuming up unwanted bugs.

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\*Because steel wool will rust if it gets wet, it may not be the best solution for light-colored facades.

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